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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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			EXAMINER
34610	7590	02/03/2004	NGUYEN, TOAN D

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ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 02/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 November 2003</u> .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-30</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-30</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)	4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5)☐ Notice of Informal Patent Application (PTO-152)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6)☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on
> sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 13-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Arimilli (U.S.

Patent 5,757,801).

For claim 13, Arimilli discloses advanced priority statistical multiplexer comprising:

modulating communication signal provided from a user application using a conversion

processor to create an interim modulated signal (col. 7 lines 29-32 and col. 7 lines 47-53);

determining a type of communication signal that was modulated to create the interim

modulated signal (col. 12 lines 15-40);

demodulating the interim modulated signal with a demodulator having a path set to

correspond with the determined type of communication signal (col. 12 lines 15-40);

processing a signal from the conversion processor using a main controller that is coupled

to the conversion processor (figure 4, col. 7 lines 41-46); and

logically multiplexing signals output from the main controller with a multiplexing

processor, wherein the multiplexing processor is coupled to the main controller (figure 3, col. 5

lines 2-14).

For claim 14, Arimilli discloses wherein a first type of communication signal is a voice

signal, a second type of signal is a facsimile signal, and a third type of communication signal is a

data signal (figure 3, col. 5 lines 21-33).

For claim 15, Arimilli discloses controlling the conversion processor with the

multiplexing processor to match their respective signal transmission modes (figure 3, col. 5 lines

21-33).

For claim 16, Arimilli discloses wherein the call control data includes at least one of a

message type, a port discriminator, user information, and a user characteristic information (col. 7

lines 25-35).

For claim 17, Arimilli discloses wherein the message type is one of a setting, a release

and a maintenance of a call. (col. 14 lines 12-44).

For claim 18, Arimilli discloses wherein the port discriminator is indicative of a

conversion processor coupled to a corresponding user application (figure 4A, col. 7 lines 6-11).

For claim 19, Arimilli discloses wherein the user characteristic information includes at

least one of a signal type, a data coding mode of the user application, a modem mode and

information for a communication line speed (col. 12 lines 18-31 and col. 12 lines 45-55).

For claim 20, Arimilli discloses advanced priority statistical multiplexer comprising:

demultiplexing an externally provided multiplexed input signal using a demultiplexing

processor (col. 5 lines 7-11 and col. 5 lines 34-46);

processing signals transmitted from the demultiplexing processor using a main controller

coupled to the demultiplexing processor (col. 5 lines 34-46); and

modulating based on a type of the communication signal and then demodulating signals

provided from the main controller using one of a plurality of conversion processors to transmit

the signals respectively to a corresponding user application (col. 7 lines 29-32 and col. 7 lines

47-53), wherein each of the plurality of conversion processors is coupled to the main controller

and a corresponding user application (figure 4, col. 7 lines 41-46), and wherein each of the

plurality of conversion processors comprises a first demodulator/modulator configured to

modulate a first type of communication signal provided from the main controller, a second

demodulator/modulator configured to modulate a second type of communication signal provided

from the main controller, and a third demodulator /modulator configured to modulate a third type

of communication signal provided from the main controller (figure 3, col. 5 lines 21-33).

For claim 21, Arimilli discloses wherein the communication signal is one of a call

processing request signal and transmission data (figure 3, col. 5 lines 1-14).

For claims 22 and 23, Arimilli discloses wherein the main controller is further configured

to receive call processing request signals provided from at least one of the conversion processors

to generate call control data that is added to transmission data in at least one header field (figure

17, col. 27 lines 52-63).

For claim 24, Arimilli discloses wherein each conversion processor is also configured to

demodulate an externally provided signal and to provide the demodulated signal to a

corresponding user application (col. 5 lines 25-28).

For claim 25, Arimilli discloses wherein the first demodulator/modulator is further

configured to modulate a first type of communication signal provided from the main controller,

wherein the second demodulator/modulator is further configured to modulate a second type of

communication signal provided from the main controller, and wherein the third

demodulator/modulator is configured to modulate a third type of communication signal provided

from the main controller (col. 5 lines 21-33).

For claim 26, Arimilli discloses wherein the communication signal is one of a call

processing request signal and transmission data (figure 3, col. 5 lines 1-14).

For claim 27, Arimilli discloses wherein processing a signal from the conversion

processor using a main controller that is coupled to the conversion processor comprises

processing a call processing request signal from the conversion processor using a main controller

that is coupled to the conversion processor to generate call control data that is added to

transmission data in at least one header field (figure 17, col. 27 lines 52-63).

For claim 28, Arimilli discloses wherein modulating a communication signal provided

from a user using a conversion processor to create an interim modulated signal comprises

modulating a communication signal provided from a user using a conversion processor to create

an interim modulated signal using a pulse code modulation (PCM) mode (col. 12 lines 18-31).

For claim 29, Arimilli discloses wherein processing signals transmitted from the

demultiplexing processor using a controller coupled to the demultiplexing processor comprises

processing call processing request signals transmitted from the demultiplexing processor using a

controller coupled to the demultiplexing processor (col. 5 lines 7-11 and col. 5 lines 34-46).

For claim 30, Arimilli discloses separating header data included in the call processing

request signal provided from the demultiplexing processor (col. 38 lines 1-10).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arimilli

(U.S. Patent 5,757,801).

For claim 1, Arimilli discloses advanced priority statistical multiplexer comprising:

plurality of conversion processors (figure 4B, col. 7 lines 5-17 and col. 7 lines 25-29),

wherein each conversion processor is configured to modulate communication signal provided by

a user application to create an interim modulated signal (col. 7 lines 29-32 and col. 7 lines 47-

53), analyze the communication signal to determine a type of communication signal and

demodulated the interim modulated signal to create a secondary original signal based on the type

of communication signal (figure 4, col. 5 line 66 to col. 6 lines 8 and col. 12 lines 15-40);

a main controller configured to process signals provided from at least one of the

conversion processors (figure 4, col. 7 lines 41-46);

a multiplexing/demultiplexing processor configured to logically multiplex signals output

from the main controller, and to demultiplex an external provided signal (figure 3, col. 5 lines 2-

14).

However, Arimilli does not explicitly disclose to create a secondary original signal based

on the type of communication signal. To create a secondary original signal based on the type of

communication signal would have been obvious to one of ordinary skill in the art since Arimilli

teaches a data multiplexing network is described which multiplexes a plurality of asynchronous

data channels with an asynchronous data stream representing compressed voice signals and/or

facsimile signals onto a single synchronous data packet stream (Abstract lines 1-5).

For claim 2, Arimilli discloses a pulse code modulation (PCM) modulator configured to

modulate a signal provided by a user application by PCM mode (col. 12 lines 18-31);

a digital signal processor configured to determine a type of a modulated signal provided

from the PCM modulator and to output the modulated signal to a path corresponding to the

determined type (figure 6C, col. 10 lines 27-34); and

a demodulating/modulating portion configured to demodulated the modulated signal

provided from the digital signal processor (figure 6C, col. 10 lines 27-34).

For claim 3, Arimilli discloses each conversion processor also includes a first line

connector, configures to communicate with a user application, that is coupled to the PCM

modulator (figure 4A, lines 310a and 310b).

For claim 4, Arimilli discloses further:

a first demodulator/modulator configured to demodulate a first type of communication

signal output from the digital signal processor to create a first type of secondary original signal

(figure 3, col. 5 lines 21-33);

a second demodulator/modulator configured to demodulate a second type of communication

signal output from the digital signal processor to create a secondary original signal (col. 5 lines

21-33);

a third demodulator/modulator configured to demodulate a third type of communication

signal output from the digital signal processor to create a third type of secondary original signal

(col. 5 lines 21-33).

For claim 5, Arimilli discloses wherein each conversion processor also includes a first

connection controller configured to generate a serial signal, based on the secondary original

signal, and to output the serial signal to the main controller (figures 6A and 6C, col. 9 lines 32-42

and col. 10 lines 27-40).

For claim 6, Arimilli discloses wherein the multiplexing/demultiplexing processor

comprises a modem processor for converting a call processing request signal and transmission

data provided from the main controller to analog signals (figure 6B, col. 10 lines 7-12).

For claim 7, Arimilli discloses a second line connector configured to process

communications with an external apparatus, wherein the second line connector is coupled to the

modem processor (figure 6B, col. 10 lines 7-12).

For claim 8, Arimilli discloses a second connection controller for controlling signals

provided from the main controller to the modem processor (figure 6B, col. 10 lines 7-12).

For claim 9, Arimilli discloses wherein the call control data comprises at least one of a

message type, a port discriminator, a user information, and a characteristic information (col. 7

lines 25-35).

For claim 10, Arimilli discloses wherein the message type is one of setting, release and

maintenance of a call (col. 14 lines 12-44).

For claim 11, Arimilli discloses wherein the port discriminator is indicative of a

discriminator of one of the conversion processors (figure 4A, col. 7 lines 6-11).

For claim 12, Arimilli discloses wherein the characteristic information includes at least one of a signal type, a data coding mode of the user application, a modem mode and information for a communication line speed (col. 12 lines 18-31 and col. 12 lines 45-55).

Response to Arguments

5.   Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D Nguyen whose telephone number is 703-305-0140. The examiner can normally be reached on Monday- Friday (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 703-308-6602. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

Toan D. Nguyen